

REMARKS

This Amendment is in response to the Office Action mailed on May 12, 2004 in which the finality of the Office Action of November 4, 2003 was withdrawn. Claims 2, 4-7, 9-14, 16, 18, 20-21 and 23-29 are pending in the application and have been rejected. Applicants hereby submit amendments to the specification, FIGS. and claims including amendments previously submitted in the Amendment After Final filed on January 5, 2004 since it is not clear from the Office Action whether those amendments have been entered. Applicants respond to the Office Action as follows.

Response to objection to the Specification

The specification was objected to because it is not clear from the specification if the method steps claimed in claims 18, 21, 26 refer to conventional (previous) practices or to the preferred embodiments. Applicants' specification has been amended to insert a paragraph following the paragraph beginning on page 13, line 3 and ending on page 13, line 16 which references new FIG. 7-1 to clarify previous practices of depositing thermal transducers at the wafer level and cutting the wafer to form air bearing surfaces on a cut surface of the wafer to form the thermal transducer along an edge of the slider. Support for this paragraph is found on Page 6, lines 18-24 of the original specification

The specification has also been amended to clarify embodiments of Applicants' invention including fabrication of thermal transducers and air bearing surfaces at the wafer level (Applicants' specification, page 14, lines 23-26) and fabrication of thermal transducers and air bearing surfaces on cut surfaces of the wafer (Applicants' specification page 14, lines 1-16). In particular, the paragraph beginning on page 13, line 29 and ending on page 14, line 3 has been amended to delete reference to conventional approaches in association with the description of

fabrication of the air bearing surface and transducer on a cut surface of the wafer. "Conventional approach" was used to convey that fabrication of air bearing surfaces on a cut surface after the transducer is fabricated at the wafer level as described in previous practices was conventional. However, in the context of the disclosure on page 13, line 29-page 14, line 16, in addition to fabrication of air bearing surfaces on the cut surface, the thermal transducer is formed on the cut surface or contoured surface to form the transducer on the air bearing surface and not along an edge surface of the slider as described in previous practices.

The paragraph beginning on page 14, line 17 and ending on page 14, line 28 has been amended to describe an approach for forming an air bearing surface at the wafer level and forming thermal transducers on the air bearing surface at the wafer level. As described, the air bearing surfaces and thermal transducers are fabricated at the wafer level to fabricate the thermal transducer on the air bearing surface as opposed to an edge of the slider as described in previous practices.

The specification was objected to on the basis of the claim limitations "contoured disc facing surface" and "thickness portion forming a contoured profile of the contoured disc facing surface". The claims have been amended to delete reference to the contoured disc facing surface and the thickness portion forming a contour profile of the contoured disc facing surface and accordingly withdrawal of the objection to the specification is respectfully requested.

Response to Claim Rejections - 35 U.S.C. § 112

Claims 2, 16, 18, 21, 26 and 28 were rejected under 35 U.S.C. § 112, first paragraph on the basis that it is not clear whether the method steps (depositing the transducer on the glide bodies already sliced from the wafer), as stated in claims 18, 21 and (depositing the transducers prior to slicing) as stated in

claim 26, as described in the specification refer to conventional (previous) practices or to the preferred embodiment. For the reasons discussed above, the subject matter claimed is clearly described in Applicants' specification as amended.

Claims 2, 16, 18, 20, 26, 28 and 4-7, 9-14, 20-21, 23-24 and 29 were rejected under 35 U.S.C. § 112, second paragraph on the basis that the claim language is confusing. Applicants has amended the specification and claims as discussed above and as amended claims 2, 16, 18, 20, 26, 28 and 4-7, 9-14, 20-21, 23-24 and 29 are proper under 35 U.S.C. § 112.

Response to Claim Objections

Claims 2 and 4-5 have been objected on the basis that the preamble of claims dependent on claim 2 should be replaced with --The glide test system--. Claims 4-5 are NOT dependent upon claim 2 and accordingly withdrawal of the objection is respectfully requested.

Claims 2 was objected on that basis that perhaps the Applicant should insert a "wherein" before thickness. Claims 2, 28 have been objected on the basis that it is not clear that the contoured disc facing surface is in fact an ABS. Claims 2 and 28 have been amended and as amended are believed proper.

Response to Claim Rejections - 35 U.S.C. § 102

Claims 2, 4-6, 10-11, 14, 16, 20, 23, 25-29 were rejected under 35 U.S.C. § 102(e) as being anticipated by Boutaghou, U.S. Patent No. 5,808,184. Claim 25 has been cancelled and claims 2, 4-6, 10-11, 14, 16, 20, 23 and 25-29 are patentable over Boutaghou as follows.

Claims 2, 4-6, 10-11, 14, 23 and 28 recite *inter alia* a thermal transducer fabricated or deposited on a raised bearing surface which provides a structural difference which is not taught nor inherent based upon Boutaghou. Boutaghou discloses fabrication of MR sensor at the wafer level using well known fabrication techniques. Boutaghou does not expressly or

inherently disclose fabrication of MR sensors and air bearing surfaces at the wafer level to fabricate or deposit MR sensors on a raised air bearing or contoured surface.

Inherency must be established by factual support or reasoning that the claimed subject matter is disclosed in the reference. The fact that Boutaghou discloses MR sensors along rails does not establish that Boutaghou teaches MR sensors deposited or fabricated on air bearing surfaces of the rails. The present invention provides a thermal transducer fabricated or deposited on a raised bearing surface in contrast to along an edge of the rails as illustrated in new FIG. 7-1 to provide a large contact area to detect asperities. The Office Action provides no factual support to establish that the Boutaghou teaches MR sensor fabricated or deposited on a raised bearing surface in contrast to previous practices illustrated in new FIG. 7-1 other than the conclusionary statement that since Boutaghou discloses MR sensor along rails, the MR sensors must be fabricated or deposited on a raised bearing surface. Accordingly withdrawal of the rejection is respectfully requested.

Claim 16 and 20 recite *inter alia* the steps of fabricating an air bearing surface on a glide head including a raised bearing surface and recessed bearing surface and depositing a thermal transducer on the raised bearing surface. Claims 16 and 20 were rejected on the basis that Boutaghou inherently discloses a thermal transducer fabricated on an air bearing surface on the basis that Boutaghou teaches an MR sensor along rails. As previously discussed the Office Action fails to establish that Boutaghou inherently teaches depositing or fabricating a thermal transducer on an raised bearing surface as claimed.

Claim 26 is dependent upon claim 16 and further recites *inter alia* that the fabrication of the raised bearing surface and the recessed surface and the deposition or fabrication of a

thermal transducer is performed on a surface of a wafer prior to slicing the wafer. Claim 26 was rejected on the basis that Boutaghou discloses that the transducers are fabricated at the wafer level (Col. 3, line 22) prior to slicing without consideration of each of the claim limitations including fabrication of the air bearing surface **and** thermal transducer at the wafer level and therefore the Office Action fails to establish a *prima facie* basis to reject claim 26.

Claim 29 is dependent upon claim 16 and further recites *inter alia* that the air bearing surface is fabricated prior to the step of depositing the thermal transducer on the raised bearing surface. Boutaghou does not expressly teach depositing a thermal transducer onto a raised bearing surface nor forming an ABS prior to depositing thermal transducers. The Office Action states it is inherent that an air bearing surface is fabricated prior to the step of depositing a thermal transducer as a matter of normal manufacturing process. This is a conclusionary statement without factual support.

Inherency, may not be established by probabilities or possibilities and cannot be based upon a conclusionary statement without factual support. As previously discussed with respect to new FIG. 7, in prior manufacturing process, a transducer is placed on a wafer prior to cutting and forming the air bearing surface which is a normal manufacturing process which teaches away from the claimed subject matter and the conclusionary statement "that the method steps of claim 29 would be met during normal manufacturing processes". Based upon the foregoing, the Office Action has fails to establish that the method steps of claim 29 are met during normal manufacturing processes other than by conclusion. Accordingly, reconsideration and withdrawal of the rejection of claim 29 is respectfully requested.

On page 5, last paragraph of the Office Action, the Office Action states that "[f]or claim 24: Boutaghou teaches that the

transducers have at least three thin layers/films". This would imply that the most outer layer serves as a protective layer. However, it is not understood that claim 24 is rejected under Boutaghou since claim 24 is not listed as one of the rejected claims under Boutaghou. Clarification is respectfully requested.

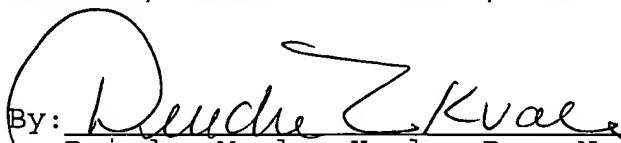
Claim 27 was rejected under 35 U.S.C. § 102(e) as being anticipated by Franco et al, U.S. Patent No. 6,262,572 on the basis that Franco discloses at least one thermal asperity transducer 96 deposited on the trailing edge of rail 98 of ABS of the slider. Col. 12, lines 45-67 and col. 13-14 of Franco disclose a TR element deposited on a trailing surface or edge of a slider. Claim 27 was improperly rejected without consideration of each of the recited claim limitations. Claim 27 recites *inter alia* at least one thermal transducer formed on the raised bearing surface not the trailing surface or edge and accordingly, the Office Action fails to establish a *prima facie* basis to reject claim 27.

Claims 7, 9 and 12-13 were rejected under 35 U.S.C. § 112. As stated above, claims 7, 9, and 12-13 are believed proper under 35 U.S.C. § 112 and allowance thereof is respectfully requested as well as allowance of claims 18 and 21 which were indicated to be allowable if proper under 35 U.S.C. §112.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: 
Deirdre Megley Kvale, Reg. No. 35,612
Suite 1600 - International Centre
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312